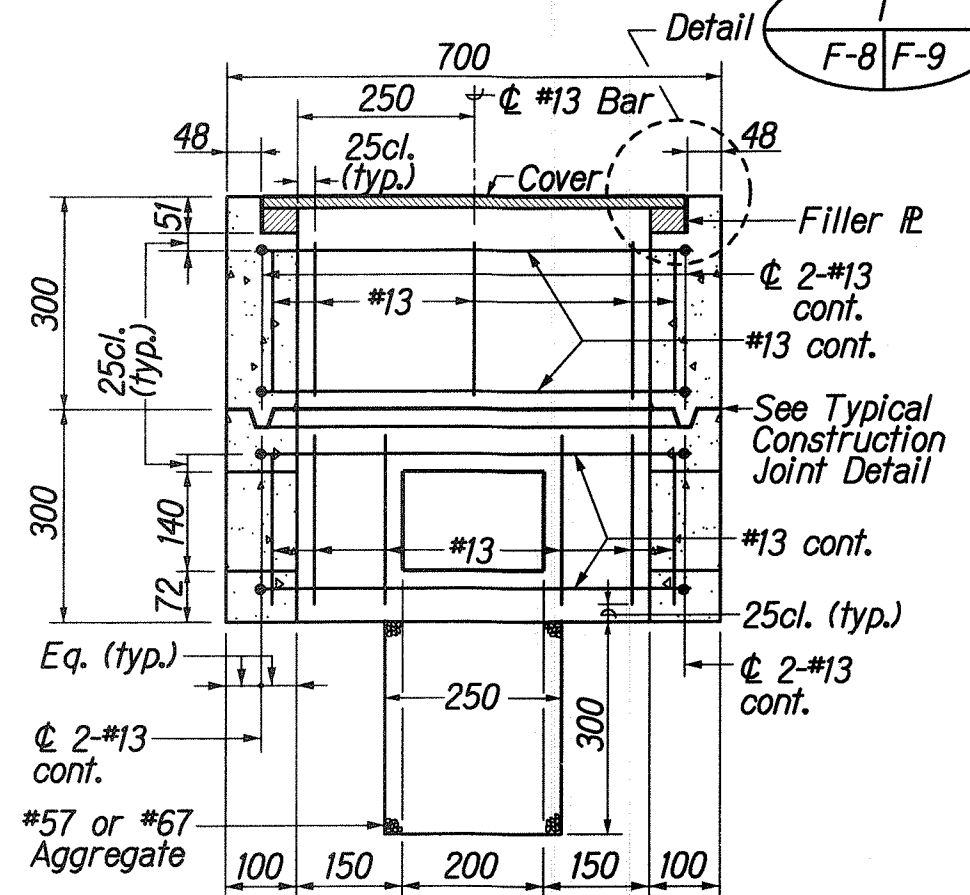
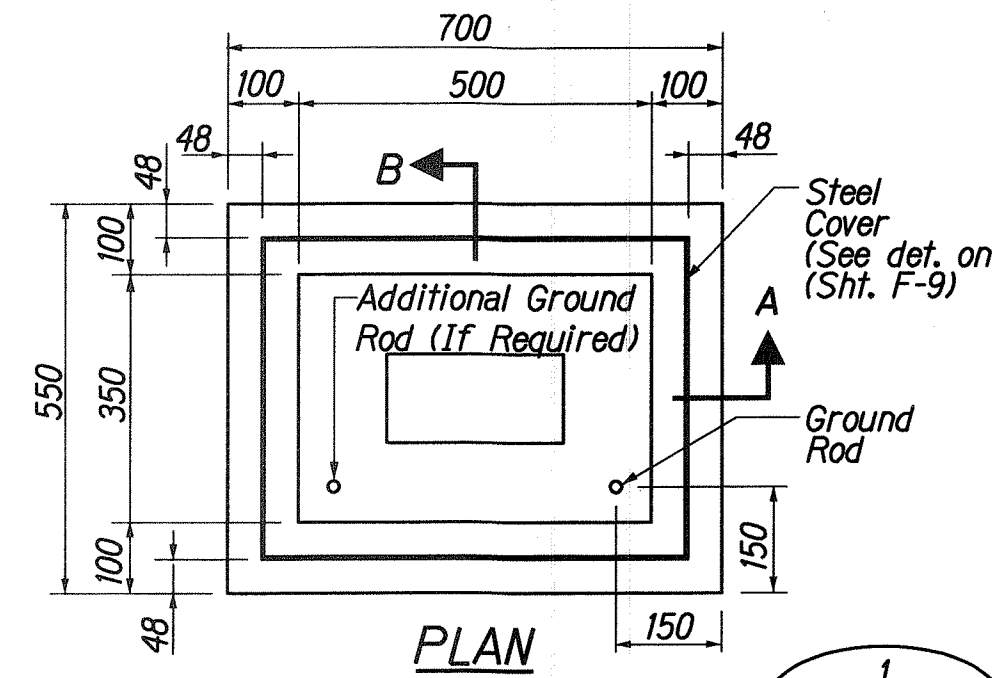
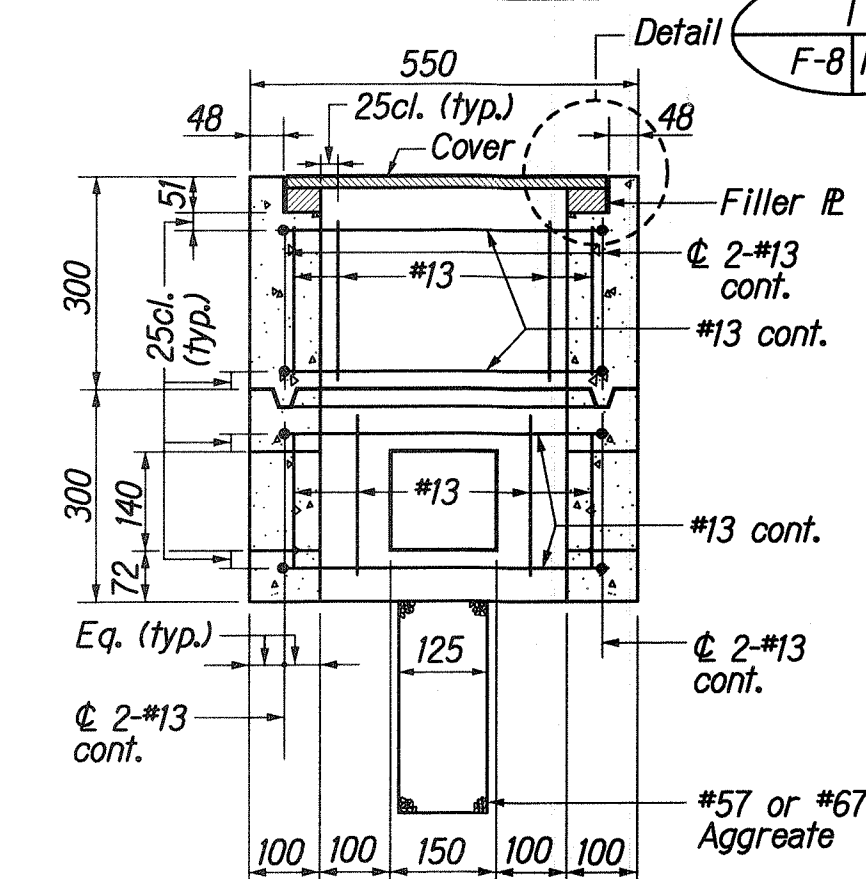


| FED. ROAD DIST. NO. | STATE | PROJ. NO.  | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | 61C-01-04# | 2004        | 79        | 91           |

02-04



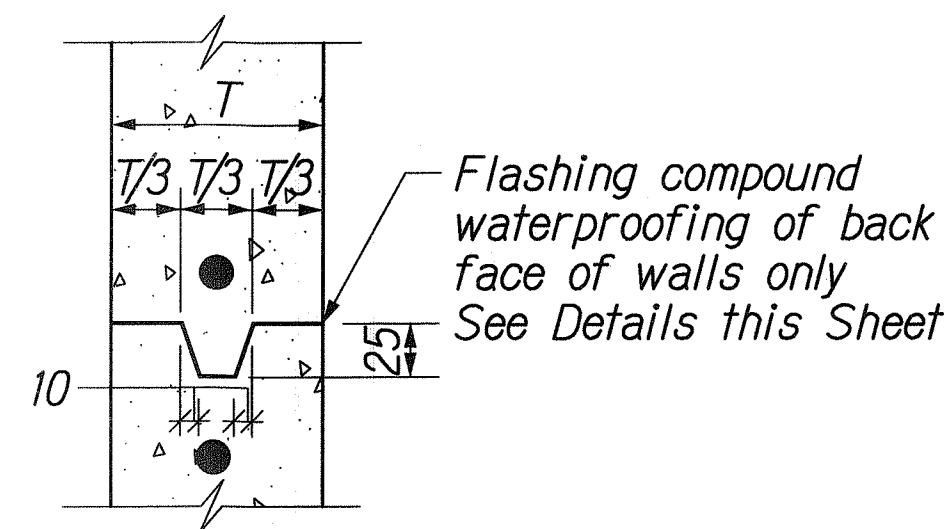
SECTION A-A



SECTION B-B

TYPE "A" PULLBOX  
(Old Type "B")

Scale: 1 : 10

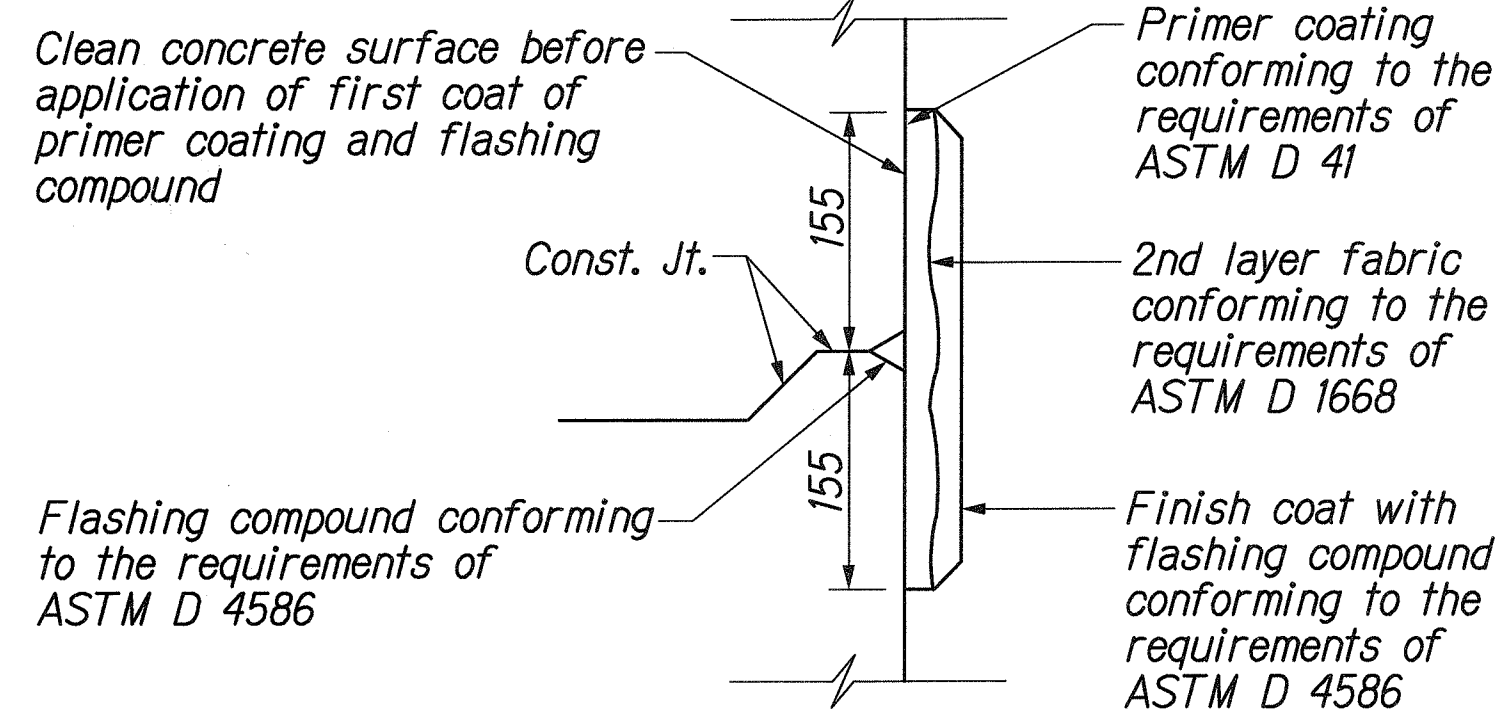


TYPICAL CONSTRUCTION  
JOINT DETAIL

Not to Scale

### GENERAL NOTES:

1. Provide a minimum of one 16Ø x 2.5m Copperweld Ground Rod in each pullbox. When directed by the Traffic Signal Inspector/Engineer, install additional Ground Rods. Cost of Ground Rods shall be incidental to the pullboxes.
2. All pre-cast concrete pullboxes shall be manufactured in two pieces.
3. The pullbox with cover shall be capable of supporting an MS 18 Loading.
4. The weight of the steel cover is 40 kilograms.
5. The openings for the conduits on all pullboxes shall be pre-cast concrete knockouts.
6. After installing the conduits in the openings of the pullboxes, the Contractor shall fill the excess opening in the pre-cast knockouts with concrete mortar.
7. Prior to installing the pullboxes, the Contractor shall level the bottom of the trench and achieve a minimum of 95% relative compaction of the bottom of the trench.
8. All concrete shall be Class A (25MPa, min.)
9. Rebars shall be Grade 420 and all lapped splices shall be 360mm minimum.
10. The #57 or #67 size aggregate shall conform to latest version of AASHTO M43 (ASTM D 448).
11. Type "C" Pullbox shall be installed in a location protected from vehicular traffic (i.e. raised sidewalk, behind A.C. curbs, traffic signal standard or pipe guards).



TYPICAL FLASHING COMPOUND  
WATERPROOFING DETAILS

Not to Scale

|                   |      |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DRAWN BY          |      |
| CHECKED BY        |      |
| NOTE BOOK         |      |
| CHECKED BY        |      |
| N.                |      |

U:\CASTLE JUNCTION\CONTRA-FLOW\FBD\ETL.dgn

THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION:  
*Hui Pang Chen*

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**CONTRA-FLOW**  
**TYPE "A" PULLBOX, NOTES & DETAILS**  
KALANIANA'OLE HIGHWAY  
EMERGENCY LANDSLIDE REPAIRS AT CASTLE JUNCTION  
PROJECT NO. 61C-01-04# 02-04  
Scale: AS SHOWN Date: Sept. 26, 2003

SHEET No. F-8 OF 20 SHEETS